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CLAIMS

1. A process for producing a diaphragm with applied catalytically active layer for use in low-temperature fuel cells, comprising the following steps:

a) processing a hydrophobic solvent, a catalytically active material and a polymer solution to form a paste, which does not contain any hydrophilic solvents.

b) applying the paste in layer form to a polymer diaphragm, and

c) pressing the diaphragm with the applied paste with the application of heat so that the solvents escape and the catalytically active material is fixed on the diaphragm.

2. A process as set forth in claim 1 wherein the paste is applied to the diaphragm in layer form by screen printing.

3. A process as set forth in claim 1 or claim 2 wherein a further binder was added to the paste.

4. A process as set forth in one of the preceding claims wherein a plasticizer was mixed with the paste.

5. A process as set forth in one of the preceding claims wherein the paste applied to the diaphragm in layer form is dried prior to the pressing operation at temperatures of between 30 and 80°C.